

MUSCLE & NERVE



CONTENTS

Official Journal of the American Association of Neuromuscular & Electrodiagnostic Medicine

JANUARY 2006

- 1** **Message from the Editor**
- 3** **Acknowledgment: Ad Hoc Reviewers**
- INVITED REVIEWS**
- 6** **Quantitative Studies of Autonomic Function**
Max J. Hilz, MD, PhD, and Matthias Dütsch, MD
- 21** **Fatigue of Muscles Weakened by Death of Motoneurons**
Christine K. Thomas, PhD, and Inge Zijdwind, PhD
- MAIN ARTICLES**
- 42** **Skin Biopsy and Quantitative Sensory Testing Do Not Predict Response to Lidocaine Patch in Painful Neuropathies**
David N. Herrmann, MB, BCh, Valerie Pannoni, BS, Richard L. Barbano, MD, PhD, Janet Pennella-Vaughan, MS, and Robert H. Dworkin, PhD
- 49** **Activity-Unrelated Neural Control of Myogenic Factors in a Slow Muscle**
Jon-Philippe K. Hyatt, PhD, Roland R. Roy, PhD, Kenneth M. Baldwin, PhD, Anton Wernig, MD, PhD, and V. Reggie Edgerton, PhD
- 61** **Single-Fiber EMG with a Concentric Needle Electrode: Validation in Myasthenia Gravis**
Ptolemaios G. Sarrigiannis, MD, Robin P. Kennett, MD, Simon Read, PhD, and Maria E. Farrugia, MD
- 66** **Nutritional Therapy Improves Function and Complements Corticosteroid Intervention in *mdx* Mice**
Eric T. Payne, BSc, Nobuo Yasuda, MSc, Jacqueline M. Bourgeois, MSc, MD, Michaela C. Devries, MSc, M. Christine Rodriguez, BSc, Junaid Yousuf, BSc, and Mark A. Tarnopolsky, MD, PhD
- 78** **Clinical and Subclinical Autonomic Dysfunction in Chronic Inflammatory Demyelinating Polyradiculoneuropathy**
Eleftherios Stamboulis, MD, Nikolaos Katsaros, MD, Georgios Koutsis, MB, BChir, Heleni Iakovidou, MD, Anastasia Giannakopoulou, MD, and Irene Simintzi, MD
- 85** **Adaptive Response of Human Tendon to Paralysis**
Constantinos N. Maganaris, PhD, Neil D. Reeves, PhD, Joern Rittweger, MD, Anthony J. Sargeant, PhD, David A. Jones, PhD, Karin Gerrits, PhD, and Arnold De Haan, PhD
- 93** **Morphological Effects of Myasthenia Gravis Patient Sera on Human Muscle Cells**
Steven Paul Luckman, PhD, Geir Olve Skeie, MD, PhD, Geir Helgeland, and Nils Erik Gilhus, MD, PhD
- 104** **Nitric Oxide Modulates Neuromuscular Transmission During Hypoxia in Rat Diaphragm**
Xiaoping Zhu, MD, Leo M. A. Heunks, MD, PhD, Leo Ennen, Herwin A. Machiels, MD, Henricus F. M. Van Der Heijden, MD, PhD, and P. N. Richard Dekhuijzen, MD, PhD
- 113** **Cardiac Conduction Alterations in a French Family with Amyloidosis of the Finnish Type with the p.Asp187Tyr Mutation in the *GSN* Gene**
Nathalie Chastan, MD, Stéphanie Baert-Desurmont, MD, Pascale Saugier-veber, PhD, Geneviève Dérumeaux, MD, PhD, Annick Cabot, MD, Thierry Frébourg, MD, PhD, and Didier Hannequin, MD, PhD
- 120** **Abnormal Expression of Proteoglycans in Ullrich's Disease with Collagen VI Deficiency**

Keiko Higashi, MD, Itsuro Higuchi, MD, Takahito Niyama, MD, Yuichi Uchida, MD, Tadamuni Shiraishi, MD, Akihiro Hashiguchi, MD, Akiko Saito, MD, Takashi Horikiri, MD, Masahito Suehara, MD, Kimiyoshi Arimura, MD, and Mitsuhiro Osame, MD

127 Pulmonary Predictors of Survival in Amyotrophic Lateral Sclerosis: Use in Clinical Trial Design

Eric P. Schmidt, MD, Daniel B. Drachman, MD, Charles M. Wiener, MD, Lora Clawson, MSN, Richard Kimball, MPH, and Noah Lechtzin, MD

SHORT REPORTS

133 Evaluation of Periodic Leg Movements and Associated Transcranial Magnetic Stimulation Parameters in Restless Legs Syndrome

Yasar Kutukcu, MD, Erhan Dogruer, MD, Sinan Yetkin, MD, Fuat Ozgen, MD, Okay Vural, MD, and Hamdullah Aydin, MD

138 Randomized Controlled Trial of Modafinil for the Treatment of Fatigue in Postpolio Patients

K. Ming Chan, MD, Fay J. Strohschein, BSc, David Rydz, BSc, Aryn Allidina, BSc, Ashfaq Shuaib, MD, and Chris F. Westbury, PhD

CASE OF THE MONTH

142 Multiple Lipomas, Alcoholism, and Neuropathy: Madelung's Disease or MERRF?

Kerrie Schoffer, MD, and Ian Grant, MD

REGULAR FEATURES

147 Book Review

148 Calendar of Events

149 AANEM News and Comments

151 AANEM Abstract Submission Form

FEBRUARY 2006

INVITED REVIEWS

155 Intracellular Signaling during Skeletal Muscle Atrophy

Susan C. Kandarian, PhD, and Robert W. Jackman, PhD

166 Neurologic Complications after Surgery for Obesity†

Boyd M. Koffman, MD, PhD, L. John Greenfield, MD, PhD, Imran I. Ali, MD, and Noor A. Pirzada, MD

MAIN ARTICLES

177 Conduction Velocity Distribution in Neurologically Well-Recovered but Fatigued Guillain-Barré Syndrome Patients

Marcel P. J. Garssen, MD, Joleen H. Blok, MSc, Pieter A. Van Doorn, MD, PhD, and Gerhard H. Visser, MD, PhD

183 Effects of Changing Wrist Positions on Finger Flexor Hypertonia in Stroke Survivors

Sheng Li, MD, PhD, Derek G. Kamper, PhD, and William Zev Rymer, MD, PhD

191 Coactivation of the Elbow Antagonist Muscles Is not Affected by the Speed of Movement in Isokinetic Exercise

Ilenia Bazzucchi, MSc, Paola Sbriccoli, PhD, Giulia Marzattinocci, MSc, and Francesco Felici, MD

200 Differential Response of Heat Shock Proteins to Hindlimb Unloading and Reloading in the Soleus

John M. Lawler, PhD, Wook Song, PhD, and Hyo-Bum Kwak, MS

208 Electromyographic Studies in *mdx* and Wild-Type C57 Mice

Jay J. Han, MD, Gregory T. Carter, MD, Jennifer J. Ra, BS, R. Ted Abresch, MS, Jeffrey S. Chamberlain, PhD, and Lawrence R. Robinson, MD

215 Evidence for Mhc I-Restricted Cd8⁺ T-Cell-Mediated Immunopathology in Canine Masticatory Muscle Myositis and Polymyositis

J. Neumann, DVM, and T. Bilzer, DVM

225 Carbohydrate Mimicry of *Campylobacter Jejuni* Lipooligosaccharide Is Critical for the Induction of Anti-GM1 Antibody and Neuropathy

Xiao Mei Shu, PhD, Fang Cheng Cai, PhD, and Xiao Ping Zhang, MB

232 An Alternative Test of Electromyographic Normalization in Patients

Wei-Li Hsu, MS, Vijaya Krishnamoorthy, PhD, and John Peter Scholz, PhD

242 Satellite Cell Numbers in Young and Older Men 24 Hours after Eccentric Exercise

Hans C. Dreyer, PhD, Cesar E. Blanco, PhD, Fred R. Sattler, MD, E. Todd Schroeder, PhD, and Robert A. Wiswell, PhD

254 Short- or Long-Term Effects of Adult Myoblast Transfer on Properties of Reinnervated Skeletal Muscles

Bertrand Coulet, MD, Fabien Lacombe, MD, Cyril Lazerges, MD, Paul-André Daussin, MD, Bernadette Rossano, BSc, Jean-Paul Micallef, DSc, Michel Chammas, MD, PhD, Yves Reyne, PhD, and Francis Bacou, DSc

265 Motor Evoked Potentials in a Mouse Model of Chronic Multiple Sclerosis

Stefano Amadio, MD, Stefano Pluchino, MD, PhD, Elena Brini, BSc, Paolo Morana, MD, Roberta Guerriero, MD, Filippo Martinelli Boneschi, MD, Giancarlo Comi, MD, Paola Zaratini, PhD, Valeria Muzio, PhD, and Ubaldo del Carro, MD

SHORT REPORTS

274 Relapsing Sensorimotor Neuropathy with Ophthalmoplegia, Antidysialosyl Antibodies, and Extramembranous Glomerulonephritis

Amaud Delval, MD, Tanya Stojkovic, MD, and Patrick Vermersch, MD, PhD

278 Which Patients Need Referral for Anal Sphincter Electromyography?

Simon Podnar, MD, DSc

CASE OF THE MONTH

283 Chronic Inflammatory Demyelinating Polyradiculoneuropathy with Tumefactive Central Demyelination

Lisa S. Krivickas, MD, Fred H. Hochberg, MD, and Stefanie Freeman, MD

TECHNICAL NOTE

289 Optimal Recording Electrode Placement in the Lumbrical-Interossei Comparison Study

Amer Al-Shekhlee, MD, Jose A. Fernandes Filho, MD, Devraj Sukul, BA, and David C. Preston, MD

REGULAR FEATURES

294 Calendar of Events

295 AANEM News and Comments

MARCH 2006

EDITORIAL

301 Electronic Processing of Manuscripts

Michael J. Aminoff, MD, DSc

INVITED REVIEWS

302 Gene-Based Treatment of Motor Neuron Diseases

Thais Federici, PhD, and Nicholas M. Boulis, MD

324 Neurophysiological Testing in Anorectal Disorders

Jean-Pascal Lefaucheur, MD, PhD

MAIN ARTICLES

334 Related Timing for Peripheral and Central Plasticity in Hypoglossal-Facial Nerve Anastomosis

Isabelle Bernat, MD, PhD, Elizabeth Vitte, MD, PhD, Georges Lamas, MD, PhD, Jacques Soudant, MD, Jean Claude Willer, MD, DSc, and Frédéric Tankéré, MD, PhD

342 Overexpression of ErbB2 and ErbB3 Receptors in Schwann Cells of Patients with Charcot-Marie-Tooth Disease Type 1A

Roberto Massa, MD, Camilla Palumbo, PhD, Tiziana Cavallaro, MD, Maria Beatrice Panico, MD, Roberto Bei, MD, Chiara Terracciano, MD, Nicolò Rizzuto, MD, Giorgio Bernardi, MD, and Andrea Modesti, MD

350 Prolonged Ischemic Conduction Failure after Reperfusion in Diabetic Nerve

Masayuki Baba, MD, Hitoshi Nukada, MD, Denise McMorran, Kazunori Takahashi, Ryuichi Wada, MD, and Soroku Yagihashi, MD

356 A Study of Three Patients with Amyotrophic Lateral Sclerosis and a Polyneuropathy Resembling CIDP

Andoni Echaniz-Laguna, MD, Bertrand Degos, MD, Michel Mohr, MD, Romain Kessler, MD, PhD, Emilie Urban-Kraemer, MD, and Christine Tranchant, MD, PhD

363 Darts Reflex: A Sympathetically Mediated Scrotal Reflex

Ugur Yilmaz, MD, Claire C. Yang, MD, and Richard E. Berger, MD

369 The Electromyographic Signal as a Presymptomatic Indicator of Organophosphates in the Body

Carlo J. De Luca, PhD, Jerry J. Buccafusco, PhD, Serge H. Roy, ScD, Gianluca De Luca, MSc, and S. Hamid Nawab, PhD

- 377 The Role of Intramuscular Nerve Repair in the Recovery of Lacerated Skeletal Muscles**
Aymeric Y. T. Lim, MB, BS, Amitabha Lahiri, MCh, Barry P. Pereira, PhD,
Jessie A. C. Tan, BSc, Sandeep J. Sebastin, MCh, Bee-Leng Tan, BSc,
Ling Zheng, BMed, and V. Prem Kumar, MB, BS
- 384 Augmentation of the Contraction Force of Human Thenar Muscles by and during Brief Discharge Trains**
James Howells, BSc, Louise Trevillion, BSc, Stacey Jankelowitz, MB, BCh, PhD,
and David Burke, MD, DSc
- 393 Novel LAMP-2 Gene Mutation and Successful Treatment with Heart Transplantation in a Large Family with Danon Disease**
Andoni Echaniz-Laguna, MD, Michel Mohr, MD, Eric Epailly, MD, Ichizo Nishino, MD, PhD,
Philippe Charron, MD, PhD, Pascale Richard, PhD, Christophe Guiraud-Chaumeil, MD,
and Christine Tranchant, MD, PhD
- 398 Morphometric Analysis of Neuromuscular Topography in the Serratus Anterior Muscle**
S. Potluri, PhD, S. J. Lampa, PhD, A. S. Norton, MS, and M. B. Laskowski, PhD
- 409 Pure Neural Leprosy: Diagnostic Value of the Polymerase Chain Reaction**
Francisco M. Bezerra da Cunha, MD, Mauricio C. M. Werneck, BSc,
Rosana H. Scola, MD, PhD, and Lineu C. Werneck, MD, PhD
- 415 Effects of Temperature on Vibration-Induced Damage in Nerves and Arteries**
Sandya R. Govindaraju, MB, BS, PhD, Brian D. Curry, PhD, James L. W. Bain, BA,
and Danny A. Riley, PhD
- 424 Analysis of Histopathologic and Molecular Pathologic Findings in Czech LGMD2A Patients**
Markéta Hermanová, MD, PhD, Eva Zapletalová, MSc, Jana Sedláčková, MSc,
Táňa Chrobáková, MSc, Ondřej Letocha, Iva Kroupová, BS, Josef Zámečník, MD, PhD,
Petr Vondráček, MD, PhD, Radim Mazanec, MD, Taťána Maříková, MD,
Stanislav Voháňka, MD, PhD, and Lenka Fajkusová, PhD
- CASE OF THE MONTH 433 High-Dose Cyclophosphamide in Refractory Myasthenia Gravis with MuSK Antibodies**
Peter T. Lin, MD, Beth A. Martin, MD, Ann B. Weinacker, MD, and Yuen T. So, MD, PhD
- AANEM POSITION STATEMENT 436 Proper Performance and Interpretation of Electrodiagnostic Studies**
- REGULAR FEATURES 440 Calendar of Events**
- 441 AANEM News and Comments**

APRIL 2006

- INVITED REVIEWS 445 Molecular Architecture of the Neuromuscular Junction**
Benjamin W. Hughes, PhD, Linda L. Kusner, PhD, and Henry J. Kaminski, MD
- 462 The Role of Neurotrophins in Muscle Under Physiological and Pathological Conditions**
Guillaume Chevrel, MD, Reinhard Hohlfeld, MD, and Michael Sendtner, MD
- MAIN ARTICLES 477 Assessment of Cortical Excitability Using Threshold Tracking Techniques**
Steve Vucic, MB, BS, James Howells, BSc, Louise Trevillion, BSc,
and Matthew C. Kiernan, PhD
- 487 Cutaneous Silent Period in Carpal Tunnel Syndrome**
Jovita Svilpauskaitė, MD, André Truffert, MD, Nerja Vaiciene, MD,
and Michel R. Magistis, MD
- 494 Differential Impairment of the Sudomotor and Nociceptor Axon-Reflex in Diabetic Peripheral Neuropathy**
Martin Berghoff, MD, Sonja Kilo, MD, Max J. Hilz, MD, and Roy Freeman, MD
- 500 Repetitive Nerve Stimulation of Facial Muscles in MuSK Antibody-Positive Myasthenia Gravis**

Shin J. Oh, MD, Yuki Hatanaka, MD, Shoji Hemmi, MD, Angela M. Young, MD, Mia L. Scheufele, MD, Sharon P. Nations, MD, Liang Lu, MD, Gwen C. Claussen, MD, and Gil I. Wolfe, MD

- 505 Age-Related Morphological Changes in Skeletal Muscle Cells of Acid α -Glucosidase Knockout Mice**
Reinout P. Hesselink, PhD, Gert Schaart, PhD, Anton J.M. Wagenmakers, PhD, Maarten R. Drost, PhD, and Ger J. Van Der Vusse, PhD
- 514 Na⁺-K⁺-ATPase Is Not Involved in the Warming-up Phenomenon in Generalized Myotonia**
Mireille C. P. Van Beekvelt, PhD, Gea Drost, MD, Gerard Rongen, MD, PhD, Dick F. Stegeman, PhD, Baziel G. M. Van Engelen, MD, PhD, and Machiel J. Zwarts, MD, PhD
- 524 Aerobic Exercise and Muscle Metabolism in Patients with Mitochondrial Myopathy**
Michael I. Trenell, PhD, Carolyn M. Sue, PhD, Graham J. Kemp, DM, Toos Sachinwalla, MB, BS, and Campbell H. Thompson, DPhil
- 532 Acute Hypoxia Limits Endurance But Does Not Affect Muscle Contractile Properties**
Hans Degens, PhD, J. Manuel Sanchez Horneros, BSc, and Maria T. E. Hopman, MD, PhD
- 538 Comparison of Three Algorithms for Multi-Motor Unit Detection and Waveform Marking**
Alexander A. Brownell, BS, Oliver Ni, MD, and Mark B. Bromberg, MD, PhD
- 546 Strength Training in Old Age: Adaptation of Antagonist Muscles at the Ankle Joint**
Emilie Simoneau, MS, Alain Martin, PhD, Michelle M. Porter, PhD, and Jacques Van Hoecke, PhD
- 556 Capsaicin Delays Regeneration of the Neuromuscular Junction of Rat Extensor Digitorum Longus Muscle after Ischemia**
Béla Turchányi, MD, János Hamar, MD, PhD, Teréz Tömböl, MD, DSc, and László Siklós, DSc
- SHORT REPORT** **568 Single-Fiber Electromyography in Limb and Facial Muscles in Muscle-Specific Kinase Antibody and Acetylcholine Receptor Antibody Myasthenia Gravis**
Maria Elena Farrugia, DPhil, Robin P. Kennett, MD, John Newsom-Davis, MD, David Hilton-Jones, MD, and Angela Vincent, MSc
- CASES OF THE MONTH** **571 Benign Course of Glycogen Storage Disease Type IIb in Two Brothers: Nature or Nurture?**
Alfred E. Slonim, MD, Linda Bulone, RN, Jennifer Minikes, MS, Arthur P. Hays, MD, Sara Shanske, PhD, Seichi Tsujino, MD, and Salvatore Dimauro, MD
- 575 Successful Treatment of MuSK Antibody-Positive Myasthenia Gravis with Rituximab**
Berit Hain, MD, Karin Jordan, MD, Marcus Deschauer, MD, and Stephan Zierz, MD
- REGULAR FEATURES** **581 Letter to the Editor**
583 Calendar

MAY 2006

- EDITORIAL** **587 Frequency-Dependent Conduction Block in Carpal Tunnel Syndrome**
David Burke, MD, DSc
- INVITED REVIEWS** **589 The Dominantly Inherited Motor and Sensory Neuropathies: Clinical and Molecular Advances**
Garth A. Nicholson, MB, BS, PhD
- 598 Mitochondrial Dysfunction and Amyotrophic Lateral Sclerosis**
Isabel Hervias, PhD, M. Flint Beal, MD, and Giovanni Manfredi, MD, PhD
- MAIN ARTICLES** **609 Targeted Suppression of An Amyloidogenic Transthyretin with Antisense Oligonucleotides**

Merrill D. Benson, MD, Barbara Kluge-Beckerman, PhD, Steven R. Zeldenrust, MD, Angela M. Slesky, MS, Diane M. Bodenmiller, MS, Aaron D. Showalter, MS, and Kyle W. Sloop, PhD

- 619 **Frequency-Dependent Conduction Block in Carpal Tunnel Syndrome**
Bradley V. Watson, BSc, William F. Brown, MD, and Timothy J. Doherty, MD, PhD
- 627 **Axonal Function and Activity-Dependent Excitability Changes in Myotonic Dystrophy**
Arun V. Krishnan, MB, BS, and Matthew C. Kiernan, MB, BS, PhD
- 637 **Depression of Involuntary Activity in Muscles Paralyzed by Spinal Cord Injury**
Jane E. Butler, PhD, Sharlene Godfrey, BSc, and Christine K. Thomas, PhD
- 645 **Variability in Conduction of the Lateral Femoral Cutaneous Nerve**
Yong Beom Shin, MD, PhD, Jae Heung Park, MD, PhD, Dong Rak Kwon, MD, and Byung Kyu Park, MD, PhD
- 650 **Meralgia Paresthetica: Clinical and Electrophysiological Diagnosis in 120 Cases**
P. Seror, MD, and R. Seror, MD
- 655 **Dose-Dependent Separation of the Hypertrophic and Myotoxic Effects of the β_2 -Adrenergic Receptor Agonist Clenbuterol in Rat Striated Muscles**
Jatin G. Burniston, PhD, William A. Clark, PhD, Lip-Bun Tan, DPhil, and David F. Goldspink, DSc
- 664 **Mechanomyographic and Electromyographic Responses to Eccentric Muscle Contractions**
Jared W. Coburn, PhD, Terry J. Housh, PhD, Moh H. Malek, MS, Joseph P. Weir, PhD, Joel T. Cramer, PhD, Travis W. Beck, MPE, and Glen O. Johnson, PhD
- 672 **Peripheral Neuropathy in an Outpatient Cohort of Patients with Sjögren's Syndrome**
Glenn Lopate, MD, Alan Pestronk, MD, Muhammad Al-Lozi, MD, Timothy Lynch, MD, Julaine Florence, DPT, Timothy Miller, MD, Todd Levine, MD, Tom Rampy, MD, Brent Beson, MD, and Irena Ramneantu, MD
- 677 **Cortical Versus Spinal Dysfunction in Amyotrophic Lateral Sclerosis**
Shahram Attarian, MD, Jean-Pierre Vedel, PhD, Jean Pouget, MD, and Annie Schmied, PhD

SHORT REPORTS

- 691 **Mass-Dependent Decline of Skeletal Muscle Function in Cancer Cachexia**
Marchel Gorselink, PhD, Stefan F.C. Vaessen, MSc, Laurens G. Van Der Flier, MSc, Inge Leenders, BSc, Diane Keger, BSc, Eric Caldenhoven, PhD, Eline Van Der Beek, PhD, and Ardy Van Helvoort, PhD
- 694 **Sensitivity of Repetitive Facial-Nerve Stimulation in Patients with Myasthenia Gravis**
Lorne H. Zinman, MD, MSc, Paul W. O'Connor, MD, MSc, Keith E. Dadson, BSc, Rita C. M. Leung, BSc, Mylan Ngo, BSc, and Vera Bril, MD

CASES OF THE MONTH

- 697 **Brachial Plexopathy Due to Malignant Peripheral Nerve Sheath Tumor in Neurofibromatosis Type 1: Case Report and Subject Review**
James Pacelli, MD, and Charles H. Whitaker, MD
- 701 **Clinicopathological Phenotype of ALS with a Novel G72C SOD1 Gene Mutation Mimicking a Myopathy**
H.G. Stewart, PhD, I.R. Mackenzie, MD, A. Eisen, MD, T. Brännström, MD, PhD, S.L. Marklund, MD, PhD, and P.M. Andersen, MD, DMSc

REGULAR FEATURES

- 707 **Book Review**
- 708 **Calendar of Events**
- 709 **AANEM News and Comments**

JUNE 2006

EDITORIAL

- 713 **Too Many Solutions for One Problem**
J. Gert van Dijk, MD, PhD

INVITED REVIEWS

- 715 **Sarcoplasmic Reticulum: The Dynamic Calcium Governor of Muscle**
Ann E. Rossi, MS, and Robert T. Dirksen, PhD

MAIN ARTICLES

- 732 **Neuropathies Associated with Excessive Exposure to Lead**
Ruth M. Thomson, BA, and Gareth J. Parry, MB, ChB
- 742 **Determinants of Epidermal Nerve Fiber Density in Normal Individuals**
T. Umapathi, MB, BS, Wan Loo Tan, BSc, Nigel C. K. Tan, MB, BS, and Yiong Huak Chan, PhD
- 747 **Electrodiagnostic Criteria for Carpal Tunnel Syndrome in Axonal Polyneuropathy**
Eroboghene E. Ubogu, MD, and Michael Benatar, MBChB, DPhil
- 752 **Utrophin Is a Calpain Substrate in Muscle Cells**
Isabelle Courdier-Fruh and Alexandre Brigueot, PhD
- 760 **Familial Idiopathic Hyper-CK-emia: An Underrecognized Condition**
Margherita Capasso, MD, PhD, Maria Vittoria De Angelis, MD, PhD, Antonio Di Muzio, MD, PhD, Oronzo Scarciolla, MD, Marta Pace, BS, Liborio Stuppia, MD, Giacomo Pietro COMI, MD, and Antonino Uncini, MD
- 766 **Electrophysiological Subtypes and Prognosis of Childhood Guillain-Barré Syndrome in Japan**
Kasumi Nagasawa, MD, Satoshi Kuwabara, MD, Sonoko Misawa, MD, Katsunori Fujii, MD, Yuzo Tanabe, MD, Nobuhiro Yuki, MD, Takamichi Hattori, MD, and Yoichi Kohno, MD
- 771 **Acute Inflammatory Demyelinating Polyneuropathy: Contribution of a Dispersed Distal Compound Muscle Action Potential to Electrodiagnosis**
James C. Cleland, MB, ChB, Khizar Malik, MD, Pariwat Thaisethawatkul, MD, David N. Herrmann, MB, BCh, and Eric L. Logigian, MD
- 778 **Selective and Nonselective Benzodiazepine Agonists Have Different Effects on Motor Cortex Excitability**
Bahram Mohammadi, MD, Klaus Krampfl, MD, Susanne Petri, MD, Dessislava Bogdanova, MD, Andon Kossev, MD, Johannes Bülfer, MD, and Reinhard Dengler, MD
- 785 **Levetiracetam Suppresses Long-Loop Reflexes at the Cortical Level**
Markus Kofler, MD
- 792 **Influence of Time of Day on Tendon Compliance and Estimations of Voluntary Activation Levels**
Stephen J. Pearson, PhD, and Gladys N. L. Onambele, PhD
- 801 **Clinical Electrophysiological Characterization of the Acquired Neuromyotonia Phenotype of Autoimmune Peripheral Nerve Hyperexcitability**
Paul Maddison, MD, Kerry R. Mills, PhD, and John Newsom-Davis, MD
- 809 **Oxidative Stress and Antioxidant Enzyme Upregulation in SOD1-G93A Mouse Skeletal Muscle**
Douglas J. Mahoney, PhD, Jan J. Kaczor, PhD, Jacqueline Bourgeois, MD, Nobuo Yasuda, MSc, and Mark A. Tarnopolsky, MD, PhD

SHORT REPORTS

- 817 **Radial Nerve Repetitive Stimulation in Myasthenia Gravis**
Adriana Petretska, MD, Randa Jarrar, MD, and Devon I. Rubin, MD
- 820 **Pentoxifylline Fails to Attenuate Fibrosis in Dystrophic (*mdx*) Diaphragm Muscle**
Luc E. Gosselin, PhD, and Jacqueline E. Williams, BS

CASE OF THE MONTH

- 824 **Response of the Drooped Head/Bent Spine Syndrome to Treatment with Intravenous Immunoglobulin**
Justin Dominick, MD, Geoffrey Sheean, MB, BS, Jonathan Schleimer, MD, and Christopher Wixom, MD

REGULAR FEATURES

- 827 **Book Review**
- 828 **Letter to the Editor**
- 830 **Calendar of Events**
- 831 **AANEM News and Comments**
- III **Volume 33 Author Index**
- VIII **Volume 33 Subject Index**
- XI **Volume 33 Contents**